Report Documentation Page

Report Date 13Aug2001	Report Type N/A	Dates Covered (from... to) -

Title and Subtitle Technical Support Working Group	Contract Number
	Grant Number
	Program Element Number

Author(s) Cronin, Tracy D.	Project Number
	Task Number
	Work Unit Number

Performing Organization Name(s) and Address(es) TSWG	Performing Organization Report Number

Sponsoring/Monitoring Agency Name(s) and Address(es) NDIA (National Defense Industrial Association) 211 Wilson Blvd, STE. 400 Arlington, VA 22201-3061	Sponsor/Monitor's Acronym(s)
	Sponsor/Monitor's Report Number(s)

Distribution/Availability Statement
Approved for public release, distribution unlimited

Supplementary Notes
Proceedings from the Weapons of Mass Destruction (WMD) Terrorism Preparedness & Response Conference & Exhibition, 30 April - 2 May 2001 Sponsored by NDIA

Abstract

Subject Terms

Report Classification unclassified	Classification of this page unclassified

Classification of Abstract unclassified	Limitation of Abstract UU

Number of Pages 54

Agenda

Session 1B - **TSWG Overview :**

What is it, and what is its purpose?

Session 2B: **New Technology and Training for Combating Chemical and Biological Terrorism :**

Ongoing Development Efforts and Products

TSWG Mission

Conduct the national interagency research and development program for Combating Terrorism through rapid research, development, and prototyping

- Identify requirements, develop solutions, and fund and execute projects

- Customize technology to specific user needs

- Deliver capabilities to users within 18-36 months
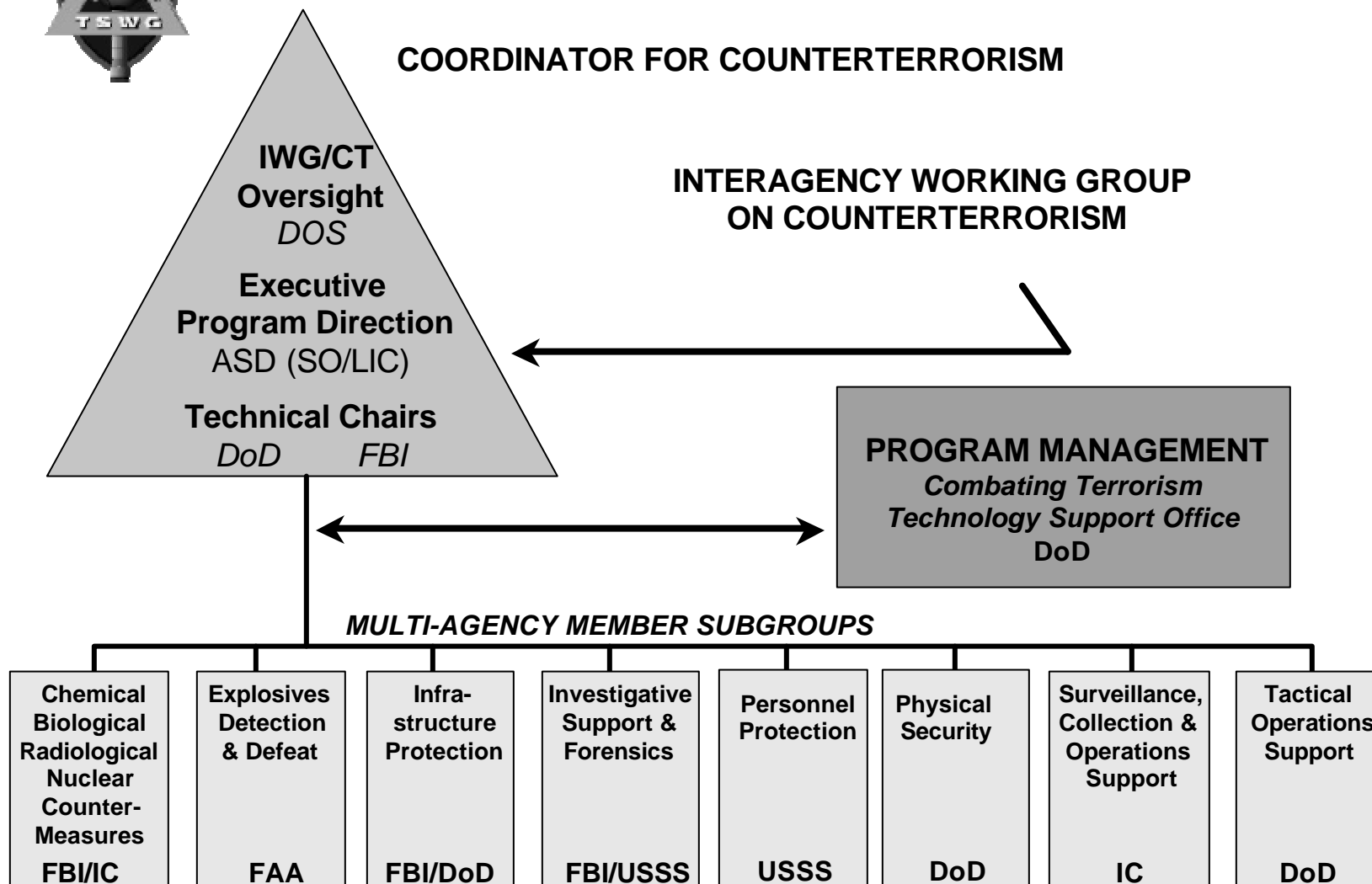
President's National Security S&T Strategy

"Countering terrorism requires close day-to-day coordination among many Executive Branch agencies…. Part of the challenge is to identify needs, seek common approaches, and coordinate development of new technologies…. This is accomplished through the interagency Technical Support Working Group."

Excerpts from the President's 1995 National Security Science and Technology Strategy

TSWG Structure

COORDINATOR FOR COUNTERTERRORISM

**IWG/CT
Oversight**
DOS

**Executive
Program Direction**
ASD (SO/LIC)

Technical Chairs
DoD   *FBI*

**INTERAGENCY WORKING GROUP
ON COUNTERTERRORISM**

PROGRAM MANAGEMENT
*Combating Terrorism
Technology Support Office*
DoD

MULTI-AGENCY MEMBER SUBGROUPS

Chemical Biological Radiological Nuclear Counter-Measures	Explosives Detection & Defeat	Infra-structure Protection	Investigative Support & Forensics	Personnel Protection	Physical Security	Surveillance, Collection & Operations Support	Tactical Operations Support
FBI/IC	**FAA**	**FBI/DoD**	**FBI/USSS**	**USSS**	**DoD**	**IC**	**DoD**

Updated 3-20-2001

TSWG Members

Department of Defense
- OASD(SO/LIC) CTPS
- OATSD/CBDP
- ODTUSD(P) PS/IP
- OUSD(A&T) DDR&E and S&TS/LW
- Defense Intelligence Agency
- Defense Threat Reduction Agency
- DoD Computer Forensics Laboratory
- DoD Polygraph Institute
- National Security Agency
- The Joint Staff
- Special Operations Command
- Unified Commands
  - European Command
  - Central Command
- US Air Force
  - Air Combat Command
  - Force Protection Battle Laboratory
  - Force Protection System Programs Office
  - Air Force Office of Special Investigation
- US Army
  - SBCCOM / ECBC
  - Medical Institute for Infectious Diseases
  - Office of the Chief of the Army Reserve
  - Special Forces
  - Technical Escort Unit
  - Consequence Management Integration Office
- US Marine Corps - CBIRF
- US Navy
  - JPO / STC
  - Naval Criminal Investigative Service
  - Naval Research Laboratory
  - Naval Special Warfare
  - NEODTD / DTRG
  - Naval Surface Warfare Center (Dahlgren)

Department of State
- Coordinator for Counterterrorism
- Diplomatic Security
- Foreign Building Operations

Department of the Treasury
- Bureau of Alcohol, Tobacco and Firearms
- US Customs Service
- US Secret Service
  - Forensic Services Division
  - Technical Security Division
  - Special Services Division

Department of Justice
- Drug Enforcement Administration
- Federal Bureau of Investigation
  - Counterterrorism Planning Section
  - WMD Operations Unit
  - Hostage Rescue Team
  - Laboratory Division
    - Bomb Data Center
    - Chemistry Unit
    - Computer Analysis and Response Team
  - Forensic Science Research and Training Center
    - Hazardous Material Response Unit
    - Questioned Documents Unit
- National Domestic Preparedness Office
  - National Infrastructure Protection Center
  - Federal Bureau of Prisons
- National Institute of Justice
- US Marshals Service

Department of Agriculture
- Animal and Plant Health Inspection Service
- Food Safety and Inspection Service

Department of Energy
- Defense Programs Elements
- National Laboratories
- Office of Safeguards and Security
- Office of Energy Intelligence

## Department of Health and Human Services/USPHS
- Centers for Disease Control & Prevention
- Food and Drug Administration
- Office of Emergency Preparedness

Department of Commerce
- National Telecommunications & Information Administration
- National Institute of Standards and Technology
- Office of Security

Department of Transportation
- Intelligence and Security Division
- U.S. Coast Guard
- Federal Aviation Administration
  - Office of Civil Aviation Security
  - FAA Technical Center
  - Office of Emergency Preparedness

Department of Veterans Affairs
Department of Interior
- US Bureau of Reclamation

Other
- Intelligence Comunity
- Environmental Protection Agency
- Federal Emergency Management Agency
- General Services Administration - Federal Protective Service
- US Postal Inspection Service
- Nuclear Regulatory Commission

Updated October, 2000

Requirements

- <u>Threat/Operational Scenario</u> - How the capability will be used.
- <u>Research/Rationale</u> - What systems are available today and specific shortcomings.
- <u>Specific Requirements</u> - size, weight, agents, cost.
- <u>Logistics/Interoperability</u>
- <u>Users</u> - DoD and others
- <u>POC</u> - User organization (Task Manager)

Business Process

- Users submit requirements to TSWG PM for Broad Agency Announcement (Competitive Solicitation for innovative ideas) – Due mid-Feb

- Advanced Program Briefing to Industry (3rd week in Feb)

- BAA advertised in Commerce Business Daily (March)

- Process begins (Quad Chart, White Papers, RFPs)

International Partners

Bilateral Combating Terrorism R&D Agreements
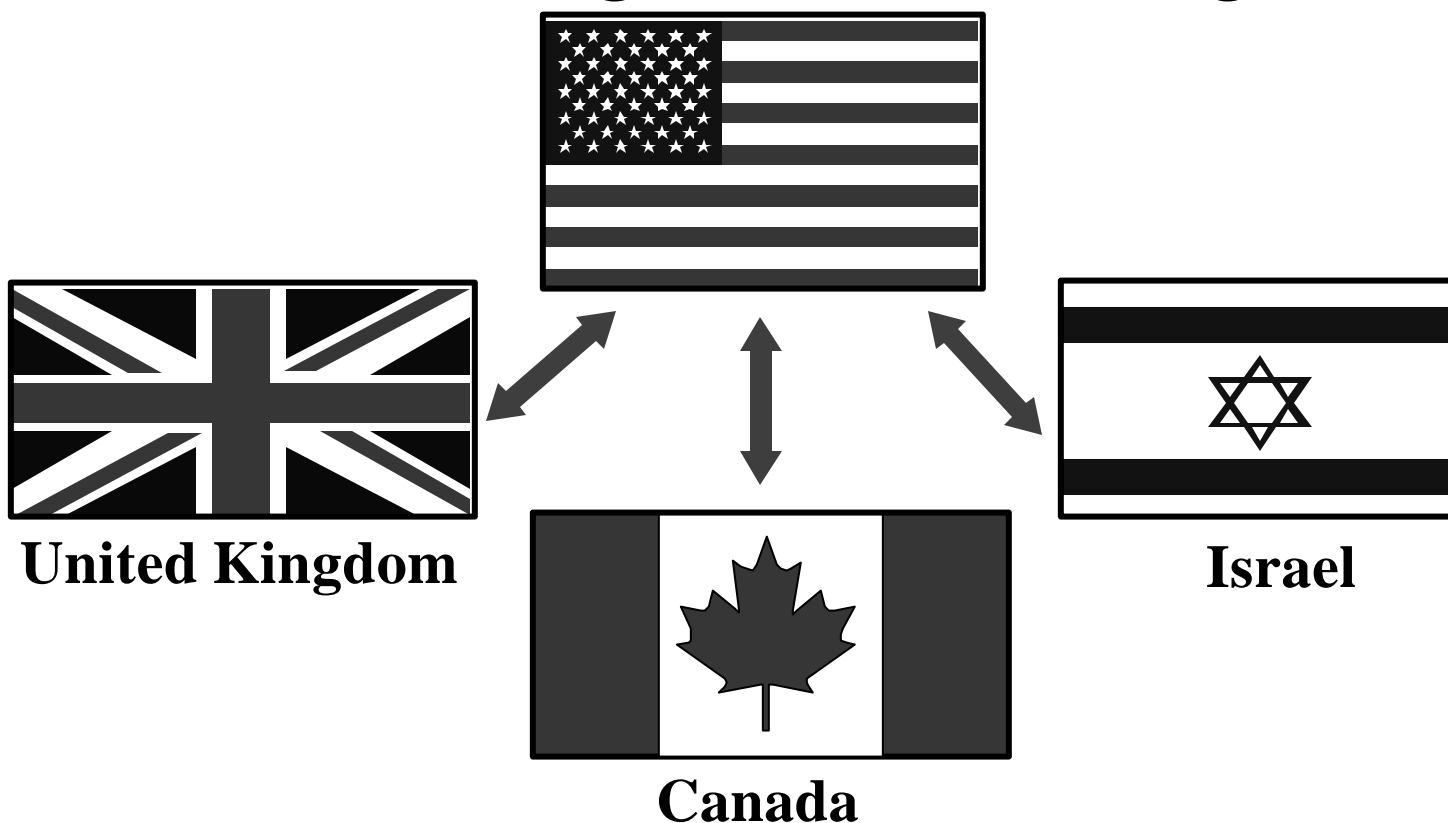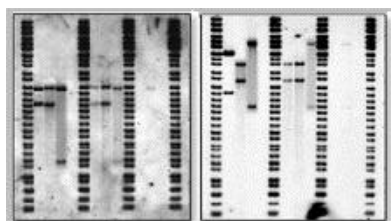
Explosives Detection and Defeat
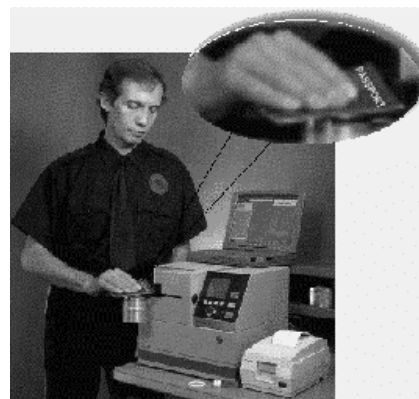
Infrastructure Protection
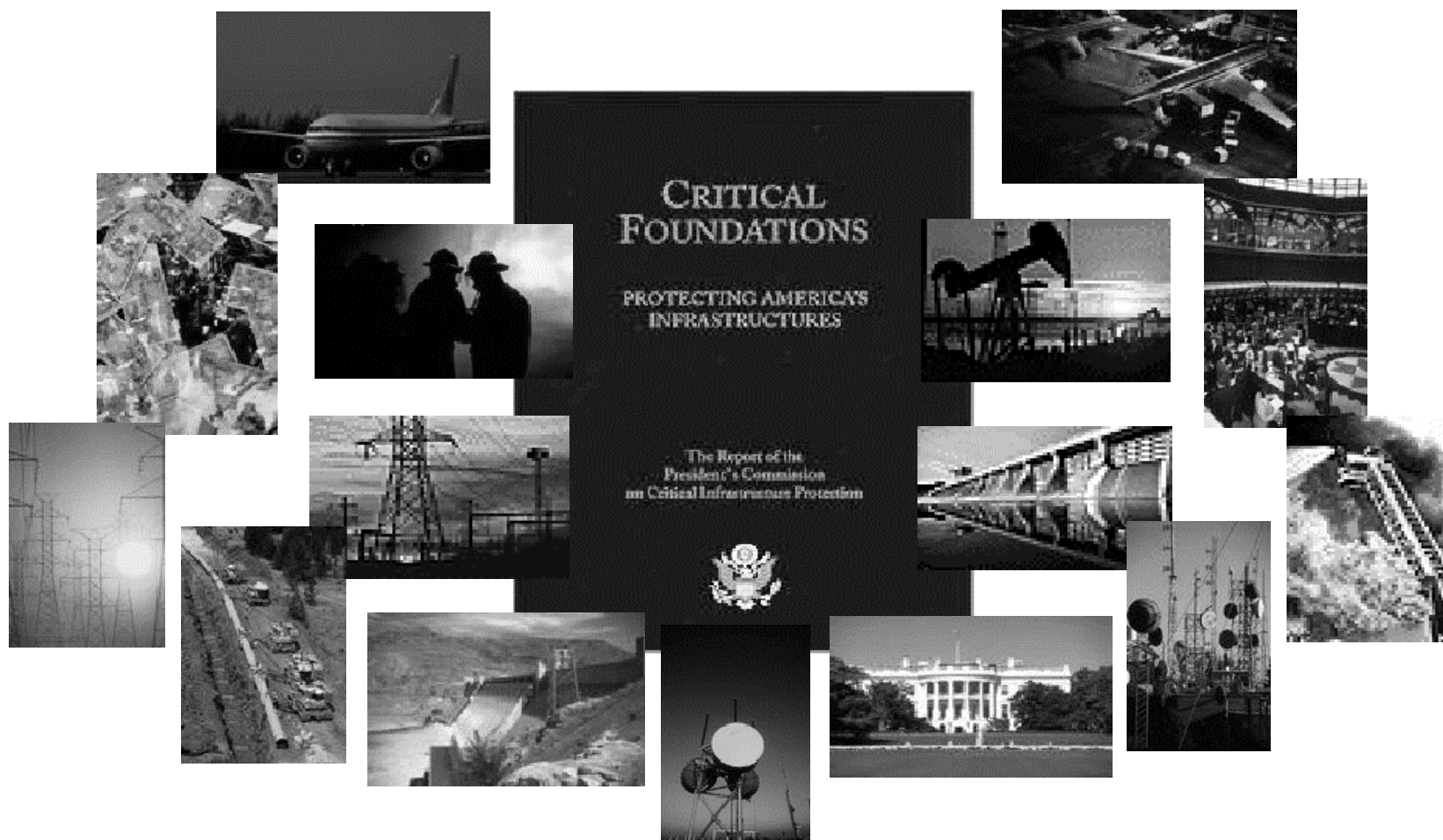
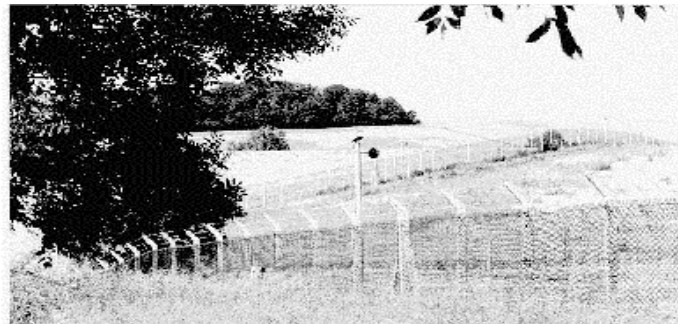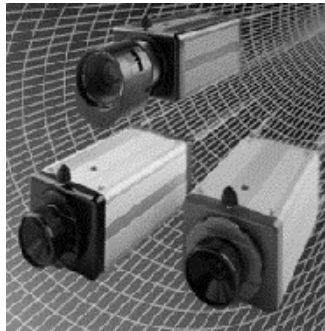# Investigative Support and Forensics
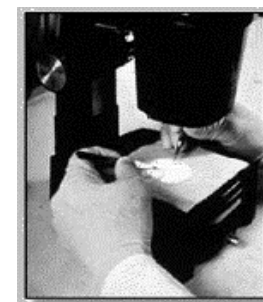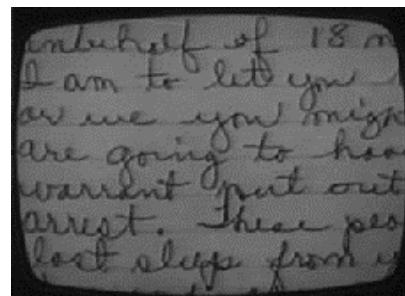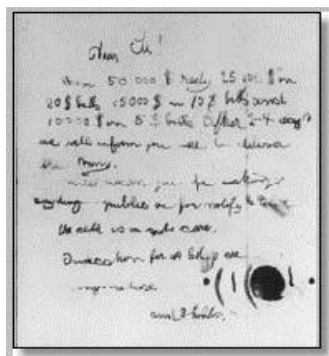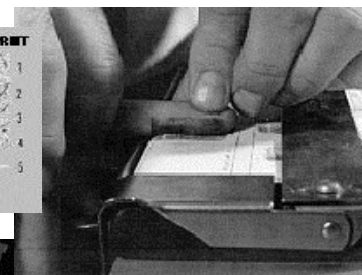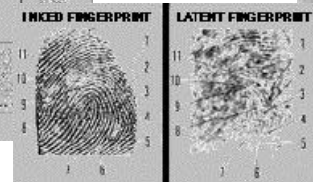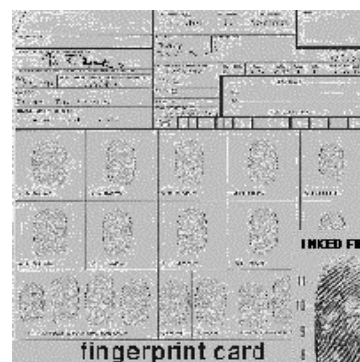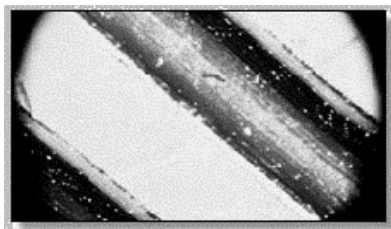
Personnel Protection

Physical Security
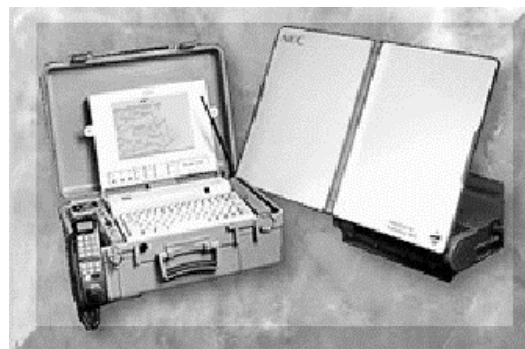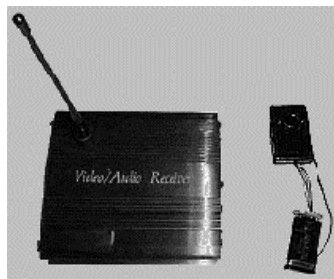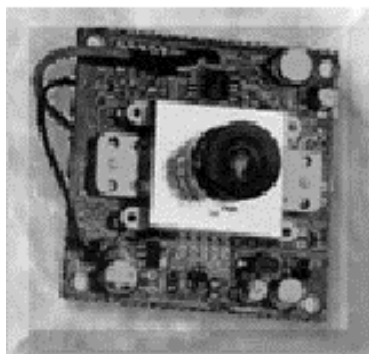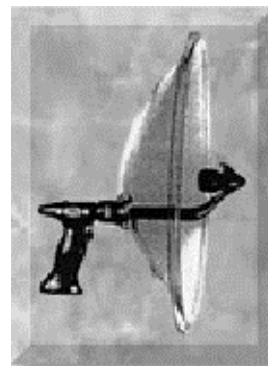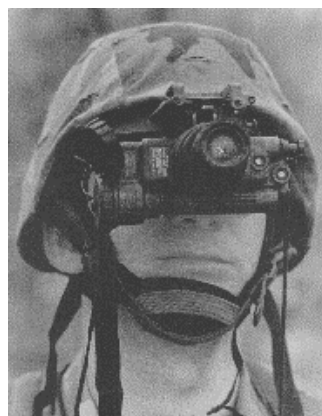
Surveillance, Collection, and Operations Support
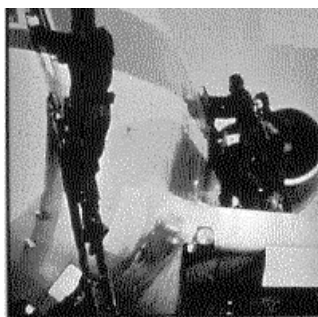
Tactical Operations Support

CBRN Countermeasures
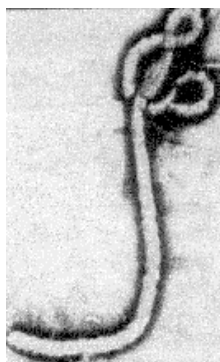
JEFFREY MACMILL AN FOR USN&WR
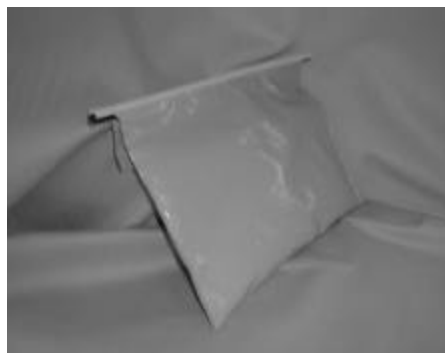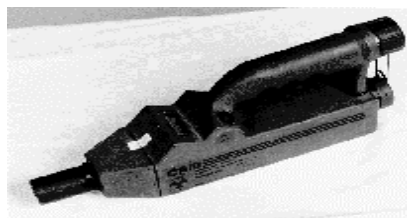
CBRNC Mission

- **Identify interagency user requirements related to terrorist-employed chemical, biological, radiological, and nuclear material.**

- **Thrust areas include detection, protection, decontamination, containment, mitigation, and disposal.**

CBRNC Threats

- **Focus on Non-Battle Field Threats**
  - **Improvised Devices**
    - **Issues: Agent Purity, Ability to Protect and Detect**
  - **Toxic Industrial Chemicals Remain High Priority due to Costs and Availability**
- **Proliferation of "How to" Literature through the Internet**
- **Challenges of Urban Environment**

Summary

- **Forum to identify, prioritize, and fund needs/requirements**
- **National/interagency dimension**
- **International dimension - (Israel, UK, Canada)**
- **Dual use/commercialization**
- **Fast track and flexible program forum**
- **Successful equipment transitions to operational communities**

Questions?

Tracy Cronin

Combating Terrorism Technology Support Office
Technical Support Working Group
1111 Jefferson Davis Hwy, Suite 116
Arlington, VA 22202

Email: cronint@tswg.gov

(703) 604-1675

New Technologies and Training for Chemical and Biological Terrorism

Ms. Tracy Cronin and Mr. Erik Chuba

Combating Terrorism Technology Support Office

Technical Support Working Group

Arlington, VA

Program Thrust Areas

- **Databases**

- **Personal Protective Equipment**

- **Detection**

- **Decontamination**

- **Training**

Ongoing Projects

Hazardous Materials Database

Requirement:
Handheld system that contains critical data, including toxicity levels and standard-off distances, on chemical agents, precursors and other hazardous materials.

Status:
CWA data incorporated and porting to Windows CE complete. Available for purchase from AristaTek.

Disposable Toxic Agent Protective System

Requirement:

Low-cost, disposable Level A, B, and C protective suits which provide full body C/B/TIC protection for First Responders,i.e., Law Enforcement, Fire Fighters, and EMS.

Status:

Testing completed. Commercialization pending final NFPA Standard 1994.

Expanded scope of effort to include development of BL-2/3

protective suits for USDA.
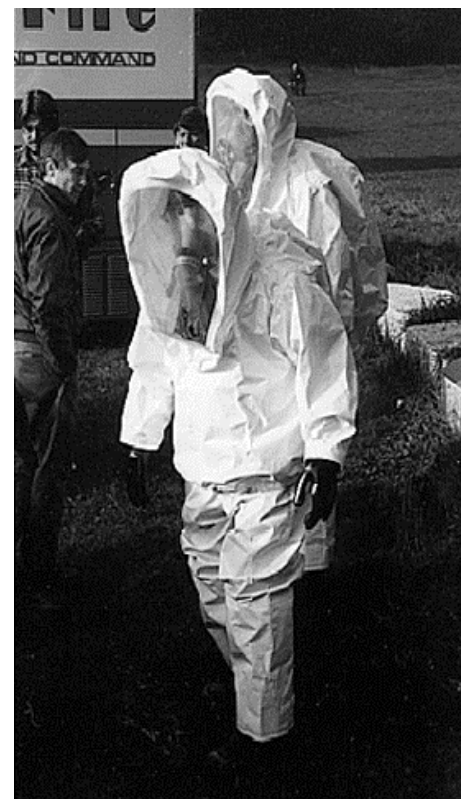
WMD Overpack Bags

Requirement:

Develop agent resistant (liquid and vapor) and durable overpack bags for safe transport of improvised CB devices and leaky military munitions.

Status:

Project completed. Overpacks will be available for purchase through GSA.

Waiting for confirmation on listing.

Escape Hood and Quick Mask Testing

Requirement:

Provide interagency users and law enforcement agencies with an escape hood/mask that provides at least 15 minutes protection in a CB environment and is safe and easy to use.

Status:

Testing and modifying commercial and prototype mask designs. Initiating follow-on effort to develop low-profile CW escape mask.

Biocontaminant Detection and Identification Strategies

Requirement: Modify existing surface sampling and analysis protocols that will support federal agency response teams. Effort will identify ideal surface sampling areas inside residential and office buildings.

Status: Determined detection limits for a variety of surfaces using current surface sampling methodologies.
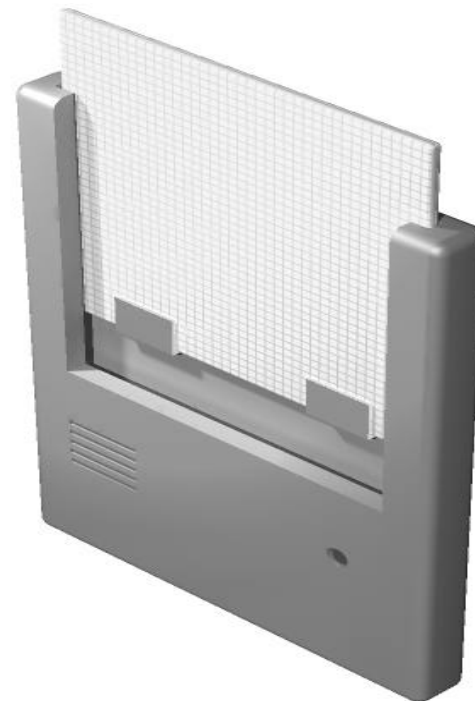
Personal Alarm Monitor

Requirement: Develop a small inexpensive sampler/ detector for the law enforcement community. The sampler will provide timely indications (visual or auditory alert) for nerve agents.

Status: Identifying suitable technologies that meet user requirements for reliability, sensitivity, packaging, and costs. This effort is funded by NIJ.

Mass Decontamination Protocols

Requirement: Validated guidelines for response personnel to cover the range of ages, health status and physical capabilities of the civilian population.

Status: Expert panel formed and four scenarios developed (persistent Chemical agent, non-persistent chemical agent, toxic industrial chemical and biological agent.) Reviewing scientific and operational data to develop guidelines.

Products

Biological Agent Characteristics Database

Requirement:
Develop a database containing pertinent characteristics of terrorist employed biological agents.

Status:
Human pathogen database available. Plant and animal pathogens completed. Classified and unclassified versions exist.
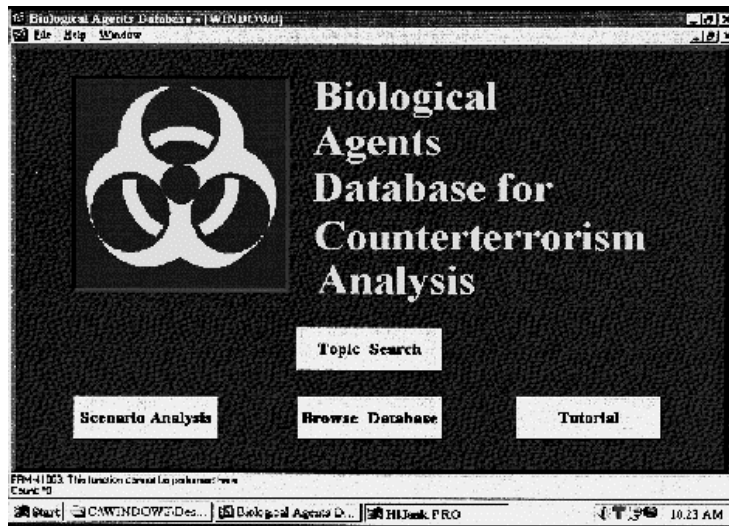
Chemical Agent Detector

Requirement:

Modify DoD M22 (ACADA/GID3)
IMS detector to include ID and
specifications of expanded chemical
threat agents (GF, AC, CK, CG, HN_3).
Data archival and date/time stamp.

Status:

Prototypes delivered. Development of
next generation system with reduced size and
false alarm rate underway.

Chem/Bio EOD Suit

Requirement:

Modified commercially-available EOD Suit to provide protection against Chem/Bio Hazards.

Status:

Evaluation of SRS-5 systems is ongoing. Project is joint funded by NIJ/TSWG. Provides protection through incorporation of CB garment under garment.

Real-Time Portable
X-Ray System

Requirement:

Develop a one-man portable, very low cost x-ray system for real-time inspection of suspect parcels.

Status:

Joint Service EOD Contract - 705 units.

Postal Service - 60 units operational.

FBI - 5 units operational.

UK - 1 unit for testing.
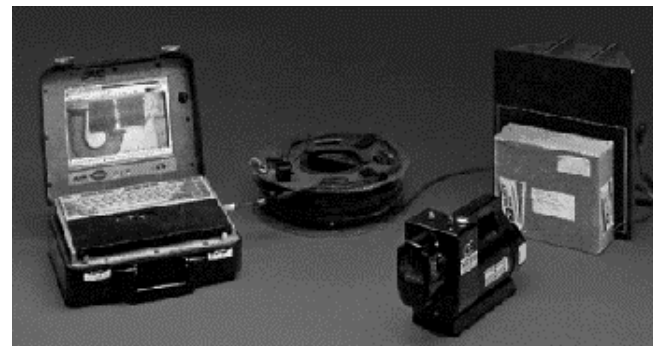
Nuclear Material Classification System

Requirement:

Ruggedized handheld detector to classify materials in a permissive environment.

Status:

Commercially available and Used by USCS, and Federal, State and Local Law Enforcement Agencies.

Training

Solving the Training Challenge

Consequence Management

Virtual University

Awareness

Certification

Initial, Sustainment, and Specialty Training

WMD Lab Tech Training

ADL Courseware Development

Management

Equipment

Satellite Broadcast Delivery

Vision

- Develop a state-of-the-art training delivery system/architecture to provide:
  - **Synchronous, asynchronous, and on demand** WMD response training at **no/low cost** to recipients
  - **Integration** of existing, disparate DL/ADL networks
  - **Centralized access** to WMD training
  - A means to **minimize** identified WMD training **redundancy** and **shortfalls** using DL/ADL

Goal

✤ Attain WMD response standardization and interoperability through:

  ‣ **Accredited WMD response training program**

  ‣ Shared use by **Federal, State, and local** WMD response elements across all disciplines

  ‣ Ensuring a **unified effort** during operational response

Approach

✤ Integrate leading development activities from a number of agencies and institutions

✤ Establish a network of resources to train personnel anytime, anywhere
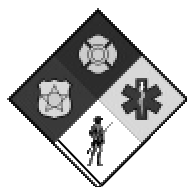
WMD Training Efforts

- WMD Response Training via Satellite

- WMD ADL Courseware Development

- WMD Laboratory Technician Course

- WMD Virtual University

WMD Response Training via Satellite

Requirement:

Deliver accredited WMD response training via satellite and terrestrial distance learning networks to DOD, other federal, state, and local emergency response and management personnel.

Approach:

Leverage existing and evolving Government and civilian satellite and cable broadcast networks and computer based delivery systems and technologies.

Status:

Two monthly 60 minute programs in production co-sponsored by DOJ, FEMA, and DOD:
- -"Consequence Management News, Equipment, and Training (CoMNET)" objectives based news magazine.
- -"Live Response" topical expert panel discussion with viewer call-in.

CoMNET (25 Oct 00)

No Picture

October 2000 CoMNET

Live Response (24 Jan 01)

No Picture

January 2001 Live Response

WMD ADL Courseware Development

Requirement:

Develop and deliver accredited WMD response training both on line and via CD-ROM.

Approach:

Produce the Weapons of Mass Destruction Psychological Impacts and Effects course as the model for future courseware development. Incorporate education industry instructional design best practices and standards and Advanced Distributed Learning Network (ADLNET) Sharable Content Object Reference Model (SCORM) standards.
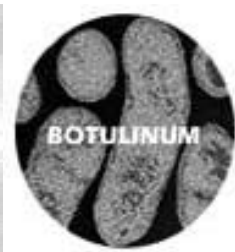
Status:

WMD-PIE Version 1.0 in final production.
Initial fielding to occur in late March – early April.

WMD Laboratory Technician Course

Requirement:

Develop a training program designed to provide the novice, intermediate, apprentice, and advanced laboratory technician with knowledge, skills, and abilities comparable to those needed to work in a Chemical Surety or Biological Safety Level 3 laboratory.

Approach:

Design a modular training program focused on Chemical Surety and Biological Safety Laboratory fundamentals and procedures. Incorporate the use of standard and high end laboratory and field detection, identification, and analysis equipment.

Status:

Training requirements analysis in progress.

Virtual University

TRAINING MANAGEMENT SYSTEM

AWARENESS EQUIPMENT TECHNICAL MANAGEMENT OPERATIONS

INITIAL, SUSTAINMENT, AND SPECIALTY TRAINING

Requirement:

Develop an Internet based learning portal and virtual university to deliver WMD response training, training related products, and information to Federal, State, and local response and emergency management personnel.

Approach:

Identify a primary delivery system that incorporates the latest ADL technologies. Integrate new and existing ADL delivery systems and architectures. Provide centralized access to WMD training across disparate training delivery systems at low or no cost.
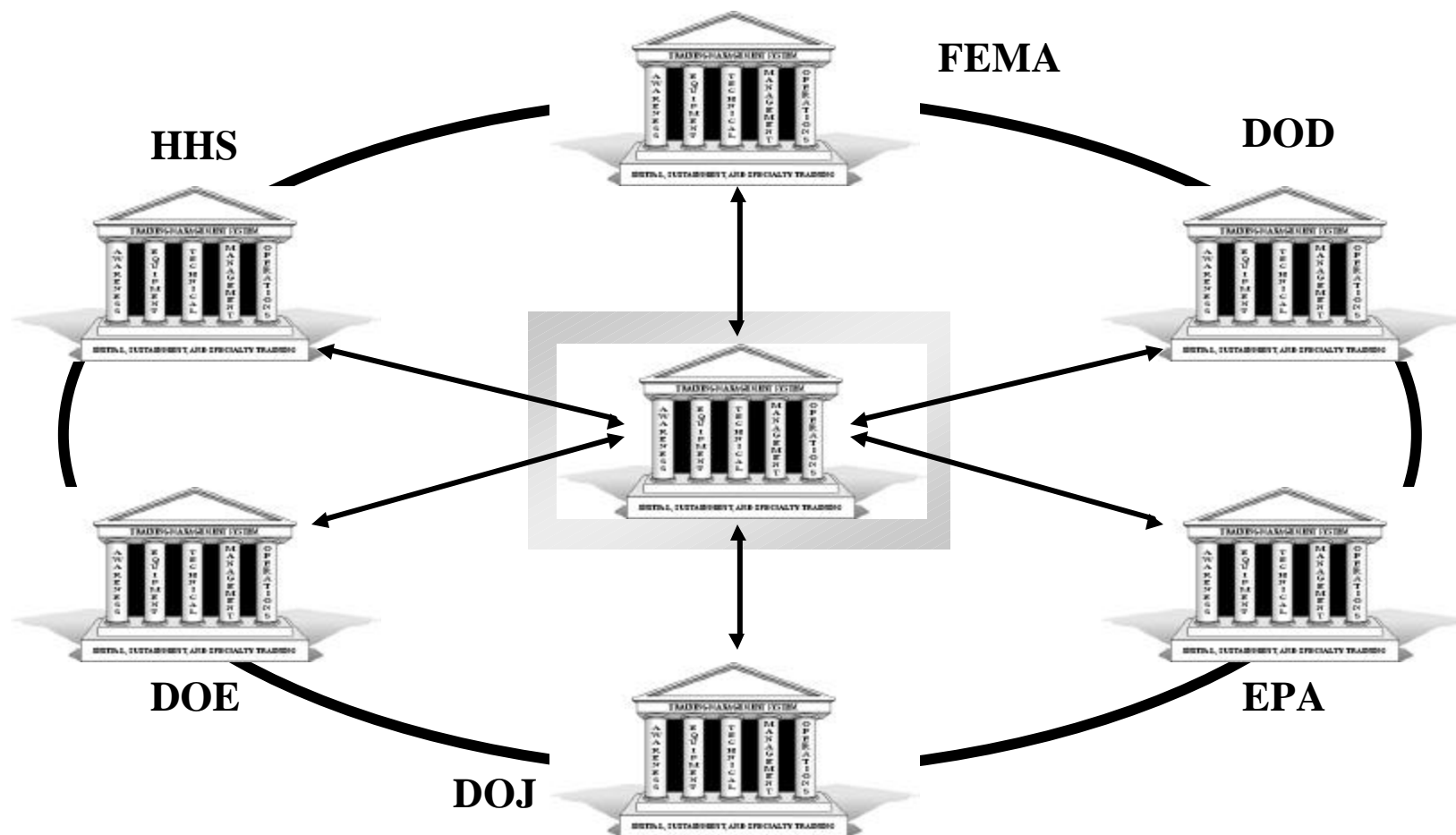
Status:

Delivery system requirements and architectures being identified and documented.
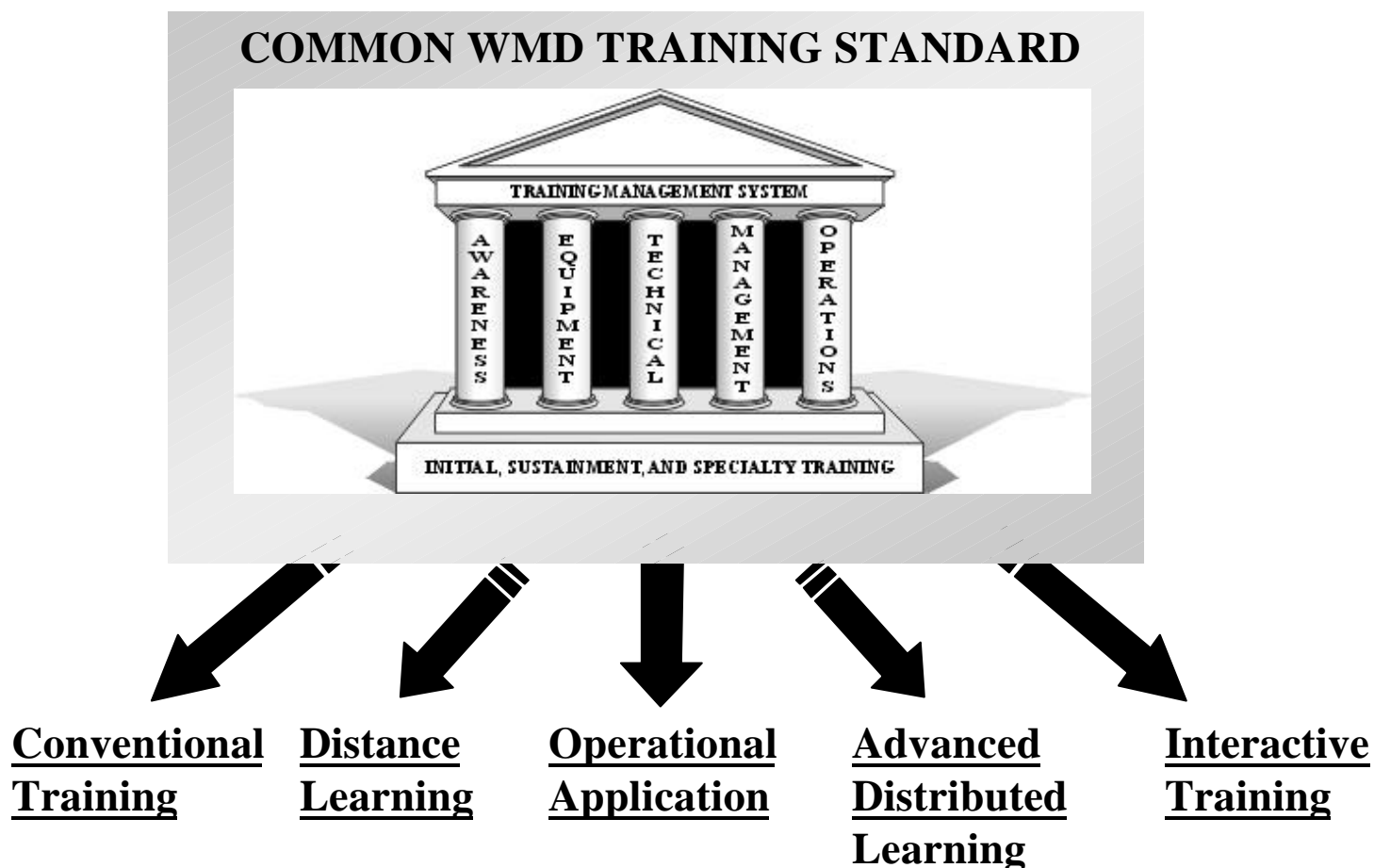Training products being developed.

Virtual University (Concept)

Interagency WMD Response Training Program and Delivery System

COMMON WMD TRAINING STANDARD

TRAINING MANAGEMENT SYSTEM

AWARENESS | EQUIPMENT | TECHNICAL | MANAGEMENT | OPERATIONS

INITIAL, SUSTAINMENT, AND SPECIALTY TRAINING

Conventional Training   **Distance Learning**   **Operational Application**   **Advanced Distributed Learning**   **Interactive Training**

Summary

- Developing a common, integrated training delivery system and architecture

- Leveraging and bringing together similar Government initiatives/efforts

- Integrating current and evolving operational and training technologies

- Meeting the needs/requirements of Interagency users

QUESTIONS?